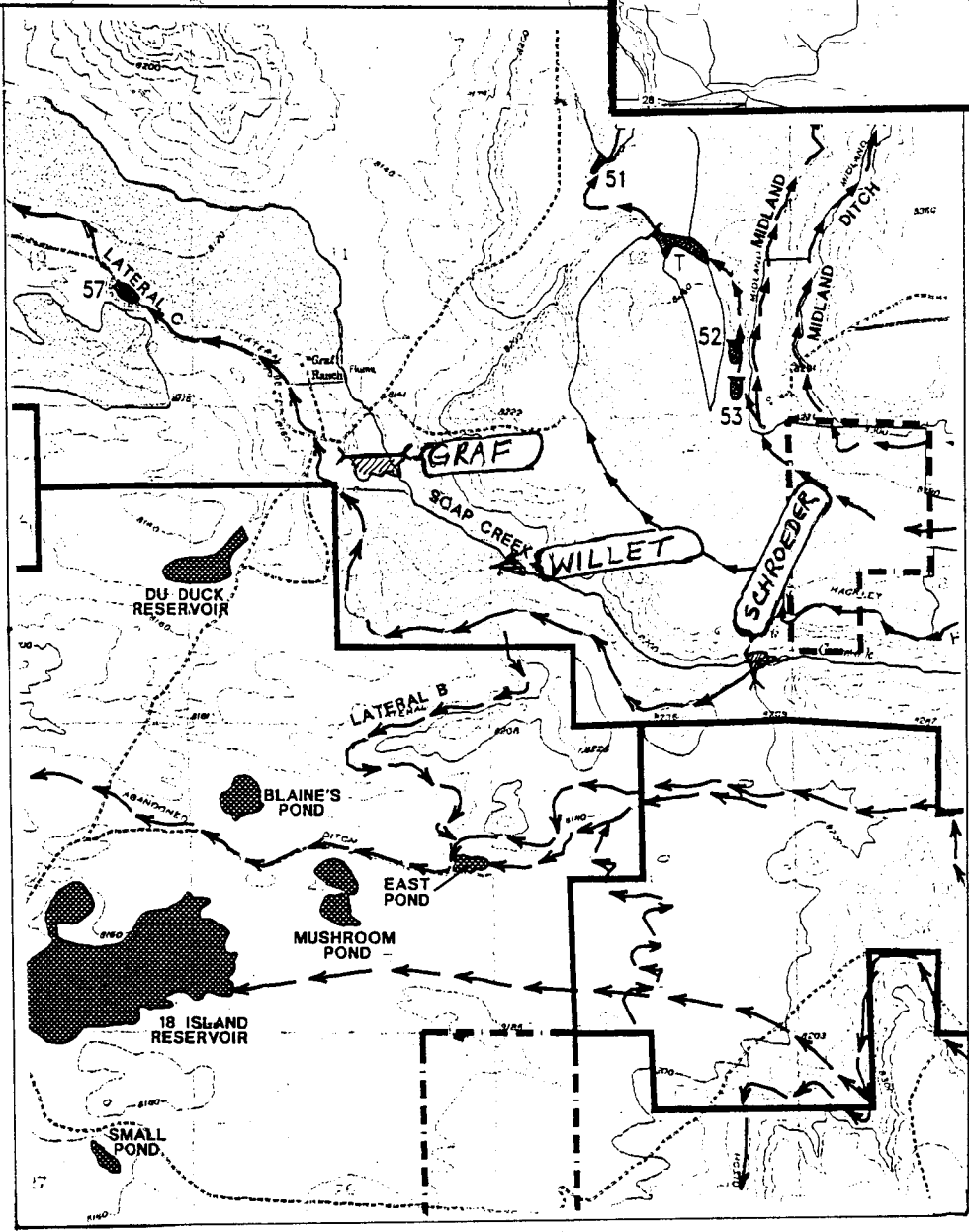


- ① Graf Pond
- ② Willet Pond
- ③ Schroeder Pond
- Approximate new boundary



200080683
27 March 2001
Sheet 1 of 4

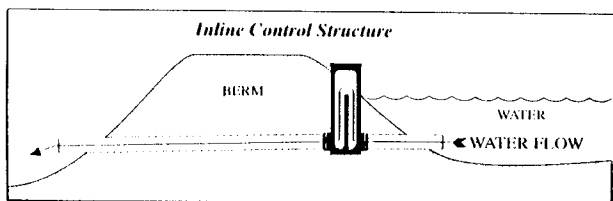
GRAF POND

Arapaho National Wildlife Refuge

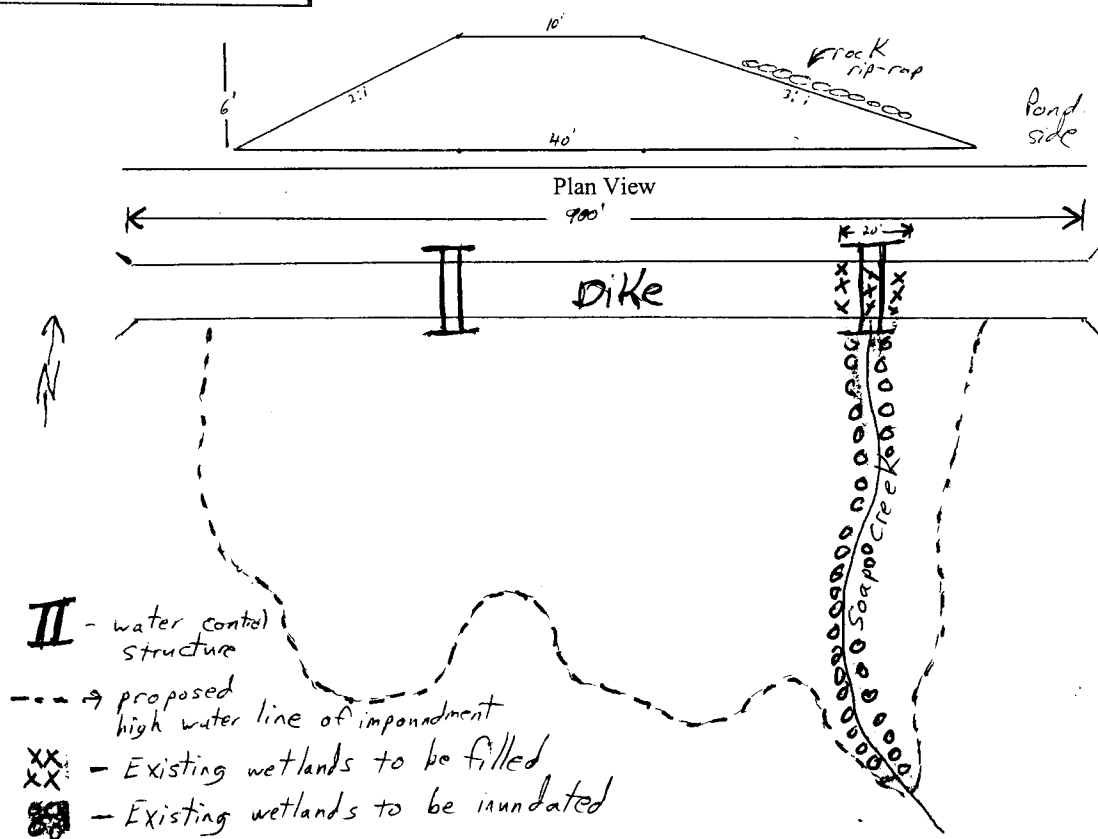
Dike Dimensions: 900' long; 6' high; 10' top width; 40' base width; 3:1 pond side slopes; 2:1 off-side slope. Two 36" diameter in-line water control structures will be installed.

Existing Wetlands: Approximately 0.42 acres of Soap Creek and immediately adjacent area.

Proposed conditions: Proposed action will fill approximately 0.02 acres of wetlands with 104 cubic yards of earth, and 7 cubic yards of rock rip-rap to create the dike. The other 0.40 acres of wetlands will be inundated with water, along with approximately 3.6 acres of uplands to create a 4 acre impoundment. Construction of the dike will require removal of 0.02 acres of wetland plants and soil (the same 0.02 acres noted above). Excavations for dike material will be on upland sites.



Dike Cross Section



200080683
27 March 2001
Sheet 2 of 4

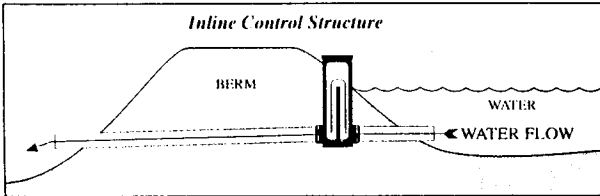
WILLET POND

Arapaho National Wildlife Refuge

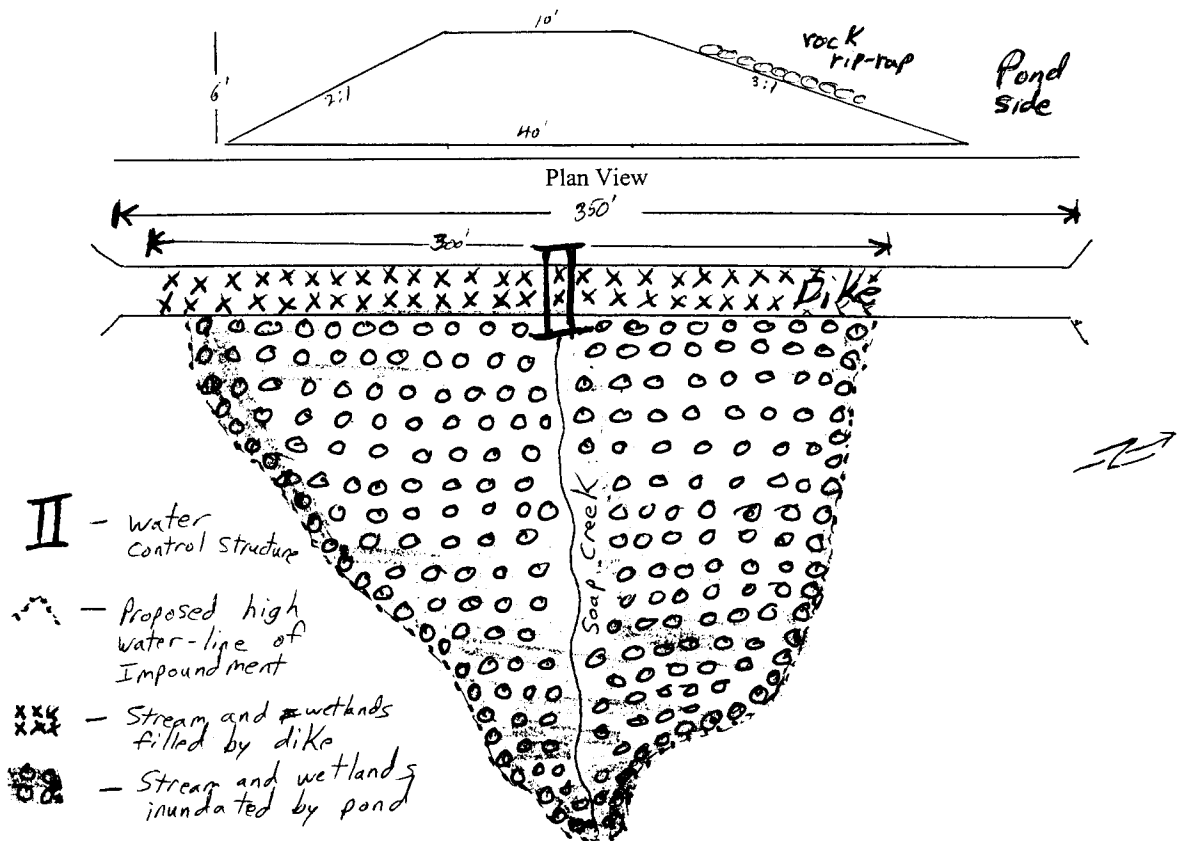
Dike Dimensions: 350' long; 6' high; 10' top width; 40' base width; 3:1 pond side slopes; 2:1 off-side slope. One 36" diameter in-line water control structures will be installed.

Existing Wetlands: Approximately 0.07 acres of Soap Creek and 1.85 acres of irrigated/sub-irrigated meadows adjacent to the creek.

Proposed conditions: Proposed action will fill approximately 0.02 acres of stream and 0.25 acres of irrigated/sub-irrigated meadows with 795 cubic yards of earth and 93 cubic yards of rock rip-rap to create the dike. The other 0.05 acres of stream and 1.6 acres of meadows will be inundated with water, to create a 1.65 acre impoundment. Construction of the dike will require removal of 0.27 acres of wetland plants and soil (the same 0.27 acres noted above). Excavations for dike material will be on upland sites.



Dike Cross Section



200080683
 27 March 2001
 Sheet 3 of 4

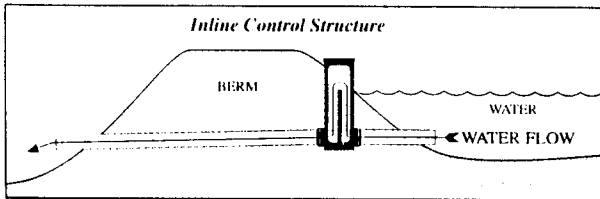
SCHROEDER POND

Arapaho National Wildlife Refuge

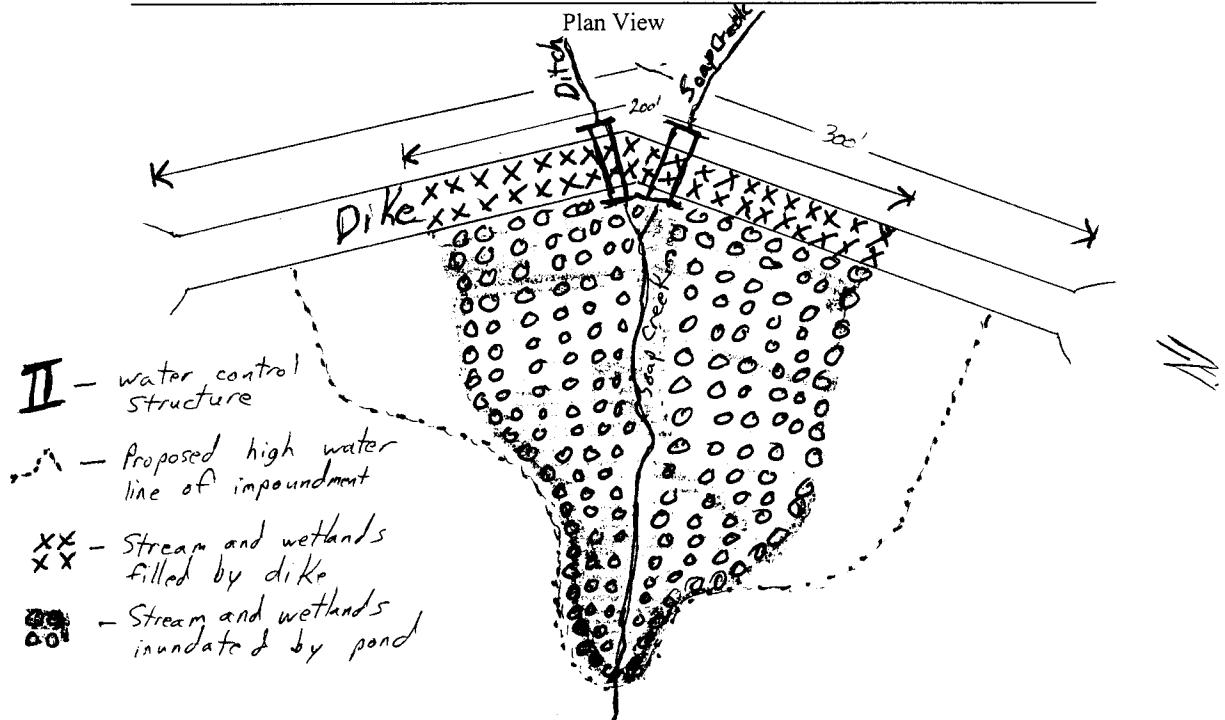
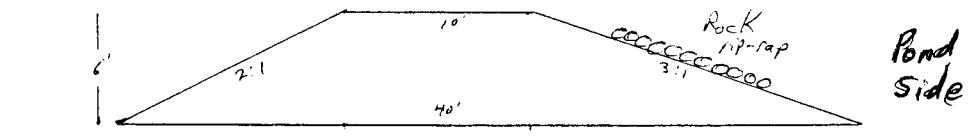
Dike Dimensions: 300' long; 6' high; 10' top width; 40' base width; 3:1 pond side slopes; 2:1 off-side slope. Two 36" diameter in-line water control structures will be installed.

Existing Wetlands: Approximately 0.1 acres of Soap Creek and 0.61 acres of irrigated/sub-irrigated meadows adjacent to the creek.

Proposed conditions: Proposed action will fill approximately 0.02 acres stream and 0.07 acres of associated wet meadows with 537 cubic yards of earth, and 55 cubic yards of rock rip-rap to create the dike. The other 0.62 acres of wetlands will be inundated with water, along with approximately 0.16 acres of uplands to create a 0.78 acre impoundment. Construction of the dike will require removal of 0.09 acres of wetland plants and soil (the same 0.09 acres noted above). Excavations for dike material will be on upland sites.



Dike Cross Section



200080683
27 March 2001
Sheet 4 of 4